

Notice of Allowability

Application No.

09/886,839

Examiner

Isaac M. Woo

Applicant(s)

WITKOWSKI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response filed on 3/29/2005.
2. ☒ The allowed claim(s) is/are 63-78, 81-98 and 102.
3. ☒ The drawings filed on 20 June 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 3/29/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


MOHAMMAD ALI
PRIMARY EXAMINER

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 29, 2005 has been entered.
2. Claims 1-62 are canceled. Claims 63-102 are newly added. The pending claims are 63-102.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Marcel Bingham (Reg. No. 42,327) on June 16, 2005.

The application has been amended as follows:

[Handwritten signature and date stamp]

Rewrite claim 63, as follows:

"63. A computer-implemented method for processing database query operations, comprising:

- a database server receiving a database query including a first array reference symbolically referencing an array having one or more indexes;
- wherein the first array reference addresses, as a cell of the array, a certain row and a certain column of a relational structure;
- wherein each index of said one or more indexes corresponds to another column different than said certain column;
- wherein a first index of said one or more indexes corresponds to a first column;
- wherein the first array reference specifies a first index expression for the first index;
- wherein the first index expression of the first array reference corresponds to a first value in said first column;
- wherein the database query specifies an operation based on the first array reference; and
- in response to receiving said database query, the database server executing the database query by performing steps including performing said operation specified in said database query."

Rewrite claim 68, as follows:

"68. The method of claim 67, wherein:

each value of said multiple values is stored in a respective row of said relational structure; and

performing said operation specified in said database query includes performing, for said each value, said operation !"

Rewrite claim 72, as follows:

"72. The method of claim 63, wherein the operation is an update operation to the certain column of said certain row."

Rewrite claim 78, as follows:

"78. The method of claim 77, wherein the first index expression for the first array reference includes a looping construct that corresponding to a range of values in the first column."

Rewrite claim 81, as follows:

"81. The method of claim 63, wherein said database query correlates the first column of the relational structure to said first index."

Rewrite claim 82, as follows:

"82. The method of claim 63, wherein said database query correlates the certain column of the relational structure to the measure of the array."

Cancel claims 79-80 and 99-100.

Now pending claims are 63-78, 81-98 and 101-102.

Allowable Subject Matter

4. Claims 63-78, 81-98 and 101-102 are allowed.

Reason For Indicating Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter: Claim 63 identifies distinct features, the computer-implemented method for processing database query operations. The closest prior art Bakalash et al (U.S. Patent No. 5,394,724) disclose, in response to receiving the database query, the database server executing the database query by performing steps that include performing the operation specified in the database query. The prior art does not address computer-implemented method, a database server receiving a database query that includes a first array reference that symbolically references an array that has one or more indexes, the first array reference addresses, as a cell of the array, a certain row and a certain column of a relational structure, each index of the one or more indexes corresponds to another column different than the certain column, a first index of the one or more indexes corresponds to a first column, the first array reference specifies a first index expression

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for the first index, the first index expression of the first array reference corresponds to a first value in the first column, the database query specifies an operation based on the first array reference. Bakalash et al (U.S. Patent No. 5,394,724) fails to suggest the claimed limitation as mentioned above in combination with other limitations of the dependent and independent claims. The claims 63-78, 81-98 and 101-102 are hereby allowed.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M. Woo whose telephone number is (571) 272-4043. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IMW
June 27, 2005


MOHAMMAD ALI
PRIMARY EXAMINER